What is claimed is:

1. An electric potential therapy apparatus, comprising:

an electric potential treatment device provided with a main electrode and an opposed electrode;

a high voltage generation apparatus for applying a high voltage to the respective electrodes;

induced current control means for causing an extremely small amount of induced current to flow in respective areas composing a human body trunk with control of an electric field of the body trunk, by varying the applied voltage to be applied to the respective electrodes and the distance between the opposed electrode and the human body trunk surface; and

a power source for driving the high voltage generation apparatus.

2. An electric potential therapy apparatus, comprising:

an electric potential treatment device provided with a main electrode and an opposed electrode;

a high voltage generation apparatus for applying a high voltage to the respective electrodes;

induced current control means for causing an extremely small amount of induced current to flow in respective areas composing a human body trunk by controlling the applied voltage applied to the respective electrodes; and

a power source for driving the high voltage generation apparatus.

3. An electric potential therapy apparatus, comprising:

an electric potential treatment device provided with a main electrode and an opposed electrode;

a high voltage generation apparatus for applying a high voltage to the respective electrodes;

induced current control means for causing an extremely small amount of induced current to flow in respective areas composing a human body trunk, by controlling the distance between the opposed electrode and the human body trunk surface; and

a power source for driving the high voltage generation apparatus.

4. The electric potential therapy apparatus according to any one of claims 1 to 3, wherein the high voltage generation apparatus is provided with a configuration made by grounding the middle point of a booster coil.

5. The electric potential therapy apparatus according to any one of claims 1 to 3, wherein an intensity E of a body surface electric field at respective areas of a human body is obtained by an expression of $E = I/\varepsilon_0\omega S$.

6. The electric potential therapy apparatus of any one of claims 1 to 3, wherein the induced current in respective areas of a human body is obtained by measuring the current flowing in the section of a measured area and converting it into a voltage signal, converting the voltage signal into an optical signal, and thereafter, reconverting the optical signal into a voltage signal, and analyzing the waveform and frequency.

7. The electric potential therapy apparatus according to claim 1 or 2, wherein the applied voltage and the induced current of respective areas composing a human body trunk are in proportional relation.

8. The electric potential therapy apparatus according to claim 1 or 2, wherein the applied voltage is made by adjusting the induced current density of respective areas obtained from the induced current flowing in respective areas composing a human body trunk to about 10.0 mA/m^2 or less.

9. The electric potential therapy apparatus according to claim 1 to 3, wherein the opposed electrode is placed at a position on the head, or at any position of head, both shoulders, abdomen, waist and hips of a human body, and the distance with the human body trunk surface is respectively about 1 to 25 cm.

10. The electric potential therapy apparatus according to claims 1 or 3, wherein the distance between the human body trunk surface and the opposed electrode is characterized by that the induced current density flowing in respective areas composing a human body trunk is adjusted to about 10.0 mA/m^2 or less.

11. The electric potential therapy apparatus according to claim 1 or 3, wherein the opposed electrode is the ceiling, wall, floor, furniture or others.

12. A control method of an optimal dose amount for a human body area, comprising the steps of:

applying a high voltage to an electrode;

controlling a dose amount obtained by a product of an induced current value flowing in areas composing a human body trunk and an induced current flowing time; and

supplying the dose amount to respective areas of a human body.

13. A control method of an optimal dose amount for a human body area, comprising the steps of:

applying a high voltage to an electrode;

controlling a dose amount obtained by a product of an applied voltage applied to a main electrode and an opposed electrode and an applying time; and

supplying the dose amount to respective areas of a human body.

14. The optimal dose amount control method for a human body area according to claim 12, wherein a dose amount effective for lumbago is obtained by the product of an induced current value flowing in the respective areas of a human body trunk of about 10.0 mA/m^2m, preferably about 0.5 mA/m^2 to about 5.0 mA/m^2 and the current supply time of about 30 min.

15. The optimal dose amount control method for a human body area according to claim 13, wherein a dose amount effective for lumbago is obtained by the product of an applied voltage about 10 to 20 KV, preferably 15 KV and the current supply time about 30 min.